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SMOOTHING CALIBRATION FILES TO IMPROVE REPRODUCTION OF DIGITIZED IMAGES

ABSTRACT OF THE INVENTION

- A method, system and computer article are presented for smoothing an image calibration signal in order to smooth a reproduced signal, and to identify the presence of any remaining spikes or other significant deviations. The invention recognizes the problems with raw calibration
- signals, and posits that the calibration signals be filtered by methods and systems described. For example, calibration data may be smoothed by fitting the calibration data to a parametric model employing either linear or non-linear least squares. Alternate techniques
- of the invention is a method, computer product or article of manufacture for improving an initial calibration profile having an initial profile extent to form an improved calibration profile. The initial profile may be
- formed for a scanner employing a linear array CCD and having a particular direction of motion. One method includes forming an extended profile extent in the direction of motion using quadratic extrapolation, applying multirate filtering to the extended profile to
- 25 form a filtered profile, and truncating the filtered profile to bring it to the initial profile extent to form the improved calibration profile.